



Metcalf & Eddy

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January 11, 1988

N00296.000214
MOFFETT FIELD
SSIC NO. 5090.3

Mr. Tom Berkins
Regional Water Quality Control Board
1111 Jackson Street, Room 6000
Oakland, CA 94607

Dear Tom:

Please find enclosed in Attachment 1 Metcalf & Eddy's review comments on the Remedial Investigation Work Plan, December 1987 (Volume I) and the Sampling and Analysis Plan, December 1987 (Volume II) for the Naval Air Station, Moffett Field, California. The reports are part of a five-volume Work Plan prepared for the U.S. Navy by IT Corporation. Metcalf & Eddy's review comments have been prepared by E.R. Lubke, Senior Hydrogeologist and expedited to you at your request. Metcalf & Eddy will be available to represent USEPA at a meeting with the Regional Water Quality Control Board and other agencies on Wednesday, January 13, 1988, or anytime thereafter. Please feel free to contact me with any questions or to arrange a specific meeting time.

Very truly yours,

Candice Tal
Project Manager

CT:smp

Attachment

cc: Lewis Mitani

214
EPA/RWQCB 3

ATTACHMENT 1

Subject: Review Comments on Remedial Investigation Work Plan,
Vols. I & II, NAS Moffett Field

Review comments are provided on the Remedial Investigation Work Plan, Naval Air Station, Moffett Field, prepared December 1987, by IT Corporation for Martin Marietta Energy Systems, Inc. The comments apply specifically to Volumes I & II, Work Plan and Sampling and Analysis Plan, respectively, as requested by USEPA.

General Comments (Vols. I & II)

1. The rationale for the selection of buried tanks and sumps for inclusion into this RI work plan is not clearly identified since other buried tanks and sumps which are located at Moffett Field have not been addressed in this work plan. Tanks and sumps to be investigated in this work plan and located at sites 14, 15, 16, 17, 18 and 19, total 20 in number whereas a total of 68 tanks and containment facilities have been identified on site. Of these a number of abandoned tanks identified by ERM West/Aqua Resources have not been included in the Work Plan. These abandoned tanks include nos. 1, 15, 27, 47, 48, 49, 50, 51, 52 and 56. In addition ERM West has recommended further studies at active tank sites not included in the Work Plan. These include tanks 30, 31, and 32. The work plan does not specifically identify these tanks and what studies are being proposed nor how the results of such studies will be incorporated into the work plan.

2. Since there is an ultimate concern for contaminant impact on the San Francisco bay and associated wetland ecosystem, detection levels of some analytes in this work plan may require lowering to meet USEPA acute and chronic saltwater toxicity criteria.

Technical

All of the following comments apply to Vol. II, Sampling and Analysis Plan unless otherwise noted. Appropriate changes made in Vol. II may also require revisions in Vol. I, Work Plan.

1. Page 1-2, paragraph 3. The nine additional site groupings in the Cease and Desist Order include a greater number of tanks/sumps for compliance action than addressed in the work plan sites 11 through 19 (See general comment 1). A table summarizing compliance action being undertaken by the Navy on tanks/sumps and other containment facilities as identified by ERM West/Aqua Resources would be a useful addendum to this work plan.

2. Page 1-4, Existing Wells. No mention is made of ERM West wells installed near tank (sump) 66, Site 18, tanks 19, 20, 67 and 68 (site 14). The inclusion of these wells in table 1-2 and whether they screen or monitor non-aquifer materials, table 1-3 would seemingly be valid. The status of wells listed in table 1-3 is not clear. Are these wells to be ultimately abandoned and sealed. Information, specifically relating to soil sample analyses at the time of their construction and water level measurements should provide valid information in the RI eventhough water quality data may not be directly related to their previous aquifer designation. For subsequent interpretation of the results of this RI, the information generated by non-aquifer wells could still prove useful and should not be ignored as implied by this work plan. As a matter of reference, the location of wells listed in table 1-3 should be shown on the appropriate location maps.

3. Page 2-9, paragraph 3, line 5. The statement - this aquifer will be B-1 - appears to be in error. Shouldn't this read - will be B-2.

4. Page 2-10, item 2.5 site 2 - Golf Course Landfill. Will there be any additional efforts to identify the landfill boundaries prior to installing borings? Without such efforts, the proposed location of borings might not provide meaningful data.

5. Page 2-14, paragraph 1. Identify the well screened near the C aquifer.

6. Page 2-14, item 2.6.2. It is not clear whether the east-west receptor ditch is the same as the perimeter canal described in item 2.6, page 2-12. If not, they should be clearly identified. If the east-west receptor is the ditch located on Moffett Field, there is a question if it exits the Navy property on the northeast corner. During a recent site visit, flow observed in the receptor was to the west to a pumping station which discharged into the perimeter canal. Therefore the location of the proposed water sampling station would be of questionable value.

7. Page 2-15, paragraph 1. The location for sediment sampling is not clearly defined. Presumably a sediment sample will be collected at the surface water sampling location.

8. Page 2-17, pagagraph 1. The location of Hangar 3 is not identified on Figure 2-4 nor is boring, line 4, shown on figure 2-4. A well and B well, line 7, also are not identified.

9. Page 2-12, paragraph 4. Reference is made to several tanks/sumps which include nos. 16 and 17. These two tanks are not specifically addressed in this Work Plan. What is their present status of investigation and how will they be ultimatly incorporated in the RI.

10. Page 2-18, last paragraph. Well 4-10(A) is shown on figure 2-4 west of tanks 16 and 17. Since groundwater gradients in the A-aquifer are northerly, the well is not located directly downgradient of the two tanks. Suggest that well 4-10(A) be relocated to reflect a downgradient location.

11. Page 2-19, paragraph 2. No soil borings are proposed in the apron area. It is suggested that historical aerial photos be reviewed to identify potential solvent spill areas which have since been paved over and that soil borings be made where spills may have entered the soil.

12. Page 2-21, item 2.8.3. No contingency provided for soil borings should the french drains be located. If the french drains are a source of contaminants, borings will be required to determine the extent and degree of soil contamination.

13. Page 2-23, item 2.9.3. Suggest another set of soil borings at former borings location, A8-3, A8-4, A8-5, and A8-6, for which soil samples were not analyzed for VOCs.

14. Page 2-24, paragraph 1. Suggest that soil samples be taken at the proposed well W8-7(B1) at the same intervals proposed for wells W8-2(B1) and W8-3(C). This information would supplement data available for nearby borings A8-1 and A8-2 for which VOC analyses are not available.

15. Page 2-25, paragraph 2. A number of tanks mentioned in this paragraph are not included for investigation in this Work Plan. These include tanks 1, 32 through 41, 51, and 52. Comments are the same as for technical item 9.

16. Page 2-26, paragraph 1. Which tanks will be investigated for leakage and how will the results of this investigation be incorporated into the RI.

17. Page 2-27, last paragraph. The location of tank 21 is not shown on the location maps. The tank should be located on the appropriate figure.

18. Page 2-27, last paragraph. A number of tanks are mentioned which are not included for investigation in this Work Plan. These include tanks 21, 57, 33 through 41, 51, and 52. Comments are the same as technical comment 15.

19. Page 2-29, paragraph 1. Well 10-8A is not located downgradient of tanks 19 and 20. Correct statement to reflect the wells location in relation to the tanks.

20. Page 3-1, item 3.1. See general comment 1.

21. Page 3-4, paragraph 3 and the last paragraph. The catch basin is not defined nor located in figure 3-6. The meaning of

drainage pathway and drainage into the catch basin is therefore obscure in relation to the bermed pit.

22. Page 3-5, item 3.4.3. Soil borings also should be made within the bermed area where potentially the highest levels of contaminants may occur.

23. Page 3-13, item 3.10.1. In reference to monitoring well ERM-4 see technical comment 2.

24. Page 3-17, paragraph 1. Comments not clear. Which soil boring locations are these wells to be located at. The soil boring locations are not identified on Figure 3-11. Presumably soil samples will be obtained during the construction of each well. The statement also implies that one B-1 well and one A well will be installed on the north side and one B-1 and one A well on the south side. Presumably the depth of 70 ft. applies to the B-1 well site.

25. Page 4-3, paragraph 3. Is IT's Knoxville lab certified by the DHS.

26. Page 4-3, Paragraph 4. See general comment 2.

27. Page 5-8, item 5.3.1. The use of grade "B" steel casing is questioned since the casing may be subject to corrosion which could interfere with metals analysis.

28. Page 5-8, item 5.3.1. What criteria will be established for use of PVC casing and screen. What is the minimum TDS at which PVC will be considered.

29. Page 5-8, item 5.3.1, paragraph 1. PVC schedule 4 should read schedule 40.

30. Page 5-8, item 5.3.1, paragraph 2. Question the use of heating for joining PVC casings. Why not use flush threaded joints.

31. Page 5-9, paragraph 1. Suggest using centralizers at more frequent intervals than stated.

32. Page 5-10, paragraph 2. Suggest that all shallow monitoring wells have their screens extend 2 1/2 feet above the highest anticipated seasonal water level as a contingency for unanticipated high water table.

33. Page 5-13, item 5.5.2. Do all existing wells include those qualified as screening/monitoring non-aquifer materials and wells installed by ERM-West.

34. Page 5-18, item 5.7.5. A more definitive field procedure for checking head space/air bubbles should be described for samples to be analyzed for volatile constituents.

35. Page 5-24, item 5.10.1, paragraph 2. The method of collecting duplicate soil samples is not clear. Will this involve making two soil borings adjacent to each other or installing six sleeves sequentially in a sampler tube.

36. Page 5-25, item, 5.10.3. The location for background soil and water samples should be identified. The use of one sample location for background sampling seems insufficient for a site as large as Moffett Field with complex land use patterns both within and along the perimeter of the Field.

37. Vol. I, page 2-48, paragraph 2, line 8. Identify the two additional sites of concern which are sites 2 and 10.

Editorial

A. Volume I, Work Plan

1. Page 2-3, last paragraph, line 7. Change - Squadron - to Squadron.

2. Page 2-14, paragraph 3, line 4. Change - nonconformly - to nonconformably.

3. Table 2-1. Column for System, change Quarternary to Quaternary, Pleiocene to Pleistocene; column Geologic Units - Monterey Shale probably Monterey Shale; column Lithologic Character, line 4 - molloscan - to molluscan, line 9 - underformed - to undeformed, line 12 Terresterial to Terrestrial.

4. Table 2-1 (Continued). Second column - Oligicene - to Oligocene; column System - Cretaceons - to - Cretaceous; column Lithologic Character, line 6 - sand stone - to sandstone, line 12 - intertanguing - to intertonguing, line 13 - unmetamorphased - to unmetamorphosed.

5. Page 2-15, paragraph 3, line 3. Change - Order on - to Order of.

6. Page 2-16, paragraph 1, line 5. Change - Iwarmura - to Iwamura.

7. Page 2-17, paragraph 2, line 1. Change - lateral - to horizontal.

8. Table 2-3. Second line item for Ash should be offset 1 column to the right. Second line item for Battery electrolyte change - Strom - to Storm.

9. Table 2-11. Line items following Caustic solutions and Benzyl alcohol should be offset 1 column to the right.

10. Page 2-39, paragraph 3, line 4. Change - fine grined - to fine grained.
11. Page 3-23, paragraph 4, line 3. Place comma following C-aquifer well.
12. Page 3-35, last paragraph, line 2. Change - periphery1 - to periphery.
13. Page 3-38, paragraph 1, line 1. Change - is is - to it is.
14. Page 3-42, last paragraph, line 4. Place comma following concern and change - Additional - to additional.

B. Volume II, Sampling and Analysis Plan

1. Table 1-1. Should follow page 1-2 where first referenced.
2. Page 2-15, paragraph 1, line 4. Change - seaon - to season.
3. Page 2-20, paragraph 2, line 3. Change A53 to A5-3.
4. Page 3-17, paragraph 3, line 4. Change - wil - to will and - instaled - to installed.
5. Page 5-13, paragraph 1, line 3. Change - see not - to are not.